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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/236,017 01/22/99 GREVEN

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EXAMINER

IM22/0625

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ROSSI, J

ART UNIT

PAPER NUMBER

1733

DATE MAILED:

06/25/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 09/236,017	Applicant(s) Greven, Richard	
	Examiner Jessica L. Rossi	Art Unit 1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/29/01; Amendment C.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

DETAILED ACTION

Response to Amendment

1. This action is in response to the amendment dated 5/29/01. Claims 1-16 are pending.
2. The rejection of claims 1-16 under 35 U.S.C. 112, second paragraph, as set forth in the previous office action, paper no. 10, has been withdrawn.
3. The rejection of claims 1, 3-8, and 14-16 under 35 U.S.C. 103(a) as being unpatentable over Ross et al. (US 5824255) in view of Reed et al. (US 5913766) and Gnagy et al. (US 5119535) as applied in the previous office action has been withdrawn due to the added limitation of the complex shaped article being responsive to aerodynamic and hydrodynamic movement.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3-8, and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross et al. (US 5824255) in view of Reed et al. (US 5913766) and Gnagy et al. (US 5119535) for the same reasons as presented in paper no. 6, paragraph 6, further taken with Weisse (US 4923544), newly cited.

With respect to claims 1 and 6, the references as set forth in paper no. 6, paragraph 6, suggested the overall operation of deforming a honeycomb core wherein the deforming was performed at room temperature. Note Ross et al. taught heating the honeycomb cores to make them more flexible prior to deformation but that heating was dependent upon the material

Art Unit: 1733

employed (column 7, lines 44-46) and Reed et al. taught it was known in the art to deform flexible honeycomb material, such as Kraft Paper cores, at ambient temperature (column 6, lines 40-62).

Although Ross et al. does not specifically state that the deformed honeycomb core is responsive to aerodynamic and hydrodynamic movement, one of ordinary skill in the art at the time the invention was made would have readily appreciated that a honeycomb core having curvature/contours as taught by Ross et al. would be responsive to such movement as opposed to a flat/planar honeycomb core that would experience more drag. Furthermore, although Ross et al. is directed to a general teaching for deforming honeycomb cores and fails to state specific uses for the final product, it is known in the art to shape/deform honeycomb cores into curved structures suitable for aircraft and boat hulls, as taught by Weisse (column 2, lines 10-16), which respond to aerodynamic and hydrodynamic movement. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the shaped core of Ross et al. would have been responsive to aerodynamic and hydrodynamic movement as evidenced by Weisse.

6. Claims 2 and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ross et al. and Reed et al. and Gnagy et al. and Weisse as applied to claim 1 and 6 above, and further in view of Chimiak (US 5514017) for the same reasons as presented in paper no. 6, paragraph 7.

7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ross et al. and Reed et al. and Gnagy et al. and Weisse and Chimiak et al. as applied to claim 11 above, and further in view of Long (US 4013810) for the same reasons as presented in paper no. 6, paragraph 8.

Response to Arguments

8. Applicant's arguments filed 5/29/01 have been fully considered but they are not persuasive.

9. On page 3 of the arguments, Applicant argues that Ross et al. does not teach deforming the honeycomb at ambient temperature but instead teaches deforming the honeycomb wherein a heating step prior to this deformation is necessary with the exact temperature to which the honeycomb is heated being immaterial.

The examiner respectfully agrees that Ross et al. does not specifically teach deforming the honeycomb at ambient temperature, however the reference does not state that heating is a necessity. Instead, the reference states that the honeycomb is heated to a forming temperature depending on the type of honeycomb used (column 7, lines 42-46). Therefore, the reference is not limited to a specific type of honeycomb thereby not excluding the use of honeycomb that can be deformed without a heating step which is known in the art, as taught by Reed et al. (column 6, lines 40-62). Therefore, the need for a heating step prior to deforming would depend on the type of honeycomb used, wherein the type of honeycomb used would have been within purview of one of ordinary skill in the art at the time the invention was made.

10. On page 4 of the arguments, Applicant argues that there is no disclosure or suggestion in Ross et al. that the deformed honeycomb is capable of responding to aerodynamic and hydrodynamic movement.

The examiner respectfully agrees that the reference does not explicitly state such capabilities, but it is respectfully pointed out that just because something is not directly stated or suggested in a reference does not mean that it is unobvious. One of ordinary skill in the art at the

Art Unit: 1733

time the invention was made would have readily appreciated that a honeycomb core having curvature/contours as taught by Ross et al. would be responsive to aerodynamic and hydrodynamic movement as opposed to a flat/planar honeycomb core that would experience more drag. Furthermore, although Ross et al. is directed to a general teaching for deforming honeycomb cores and fails to state specific uses for the final product, it is known in the art to shape/deform honeycomb cores into curved structures suitable for aircraft and boat hulls, as taught by Weisse (column 2, lines 10-16), which respond to aerodynamic and hydrodynamic movement.

11. On page 4 of the arguments, Applicant argues that the honeycomb material in Reed et al. is deformed by crushing which destroys the integrity of the honeycomb making it incapable of responding to aerodynamic and hydrodynamic movement.

The examiner respectfully points out that Reed et al. was only used to show that it is known in the art to deform flexible honeycomb materials such as Kraft Paper at ambient temperature.

12. On page 4 of the arguments, Applicant argues that Gnagy et al. does not deform a honeycomb core at ambient temperature.

The examiner respectfully points out that Gnagy et al. was only used to show that it is known in the art to cut a honeycomb core prior to deformation followed by bending of the deformed honeycomb. However, the reference to Reed suggested the deformation of a honeycomb core at ambient temperature.

13. On page 5 of the arguments, Applicant argues that Chimiak et al. does not disclose or suggest honeycomb cores having complex, contoured shapes.

Art Unit: 1733

The examiner respectfully points out that Chimiak et al. was only used to show it is known to bond layers to the top and bottom surfaces of a honeycomb core. However, the references to Ross, Reed, and Weisse, for example, clearly suggested such complex shapes. Applicant is reminded that one cannot show non-obviousness where combinations of references have been applied under 35 U.S.C. 103(a) by attacking the references in a vacuum of the other art applied.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jessica L. Rossi** whose telephone number is **703-305-5419**. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

Art Unit: 1733

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on 703-308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7718 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Jessica L. Rossi
Patent Examiner
Art Unit 1733

JLR

Jeff H. Aftergut
JEFF H. AFTERGUT
PRIMARY EXAMINER
GROUP 1300

jl
June 22, 2001